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ABSTRACT

A metacognitive approach to written language instruction was implemented to ameliorate the severe deficits in written language exhibited by five learning-disabled third and fourth graders. The 10-week program contained two basic elements: sustained writing practice, and strategy training for revision of written projects. The sustained writing practice involved engaging in a daily written dialogue with another student partner. The strategy for monitoring their written product involved having students evaluate whether their story made sense, was interesting, used proper punctuation, used proper spelling, and used proper capitalization. The results indicated that students benefited from the program by exhibiting improved cognitive ability, improved attitudes toward writing, and improved metacognitive awareness. Appendices include student and teacher interviews, a letter of introduction to parents, a strategy worksheet, a story planning worksheet, punctuation practice, a grading system, and writing topics. (JDD)

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# A METACOGNITIVE APPROACH TO WRITTEN LANGUAGE INSTRUCTION FOR PRIMARY LEARNING DISABLED STUDENTS

by

MADELINE FISHER KUHNS

A Practicum Report

submitted to the faculty of the Center for the Advancement of Education of Nova University in partial fulfillment of the requirements for the degree of Master of Science.

The abstract of this report may be placed in a national database system for reference.

June/1989

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Signed: Madeline Fisher Kuhns

Madeline Fisher Kuhns

Abstract

A Metacognitive Approach To Written Language Instruction For Primary Learning Disabled Students
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A metacognitive approach to written language instruction was implemented to ameliorate the severe deficits in written language exhibited by the five learning disabled third and fourth graders who made up the target population. The program contained two basic elements: sustained writing practice and strategy training for revision of written projects. The results indicated that students benefited from this program by exhibiting improved cognitive ability, improved attitudes toward writing, and improved metacognitive awareness. These results were measured by comparing of the Test of Written Language(Hammill and Larsen, 1986), a written language sample, revision of a written language sample, and interviews administered prior to and following implementation. Appendices include student and teacher interviews, a letter of introduction to parents, permission to test, a strategy worksheet, a story planning worksheet, punctuation practice, a grading system, and preassigned writing topics.

## Appendix J

Nova University
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### Observer Verification Form

**Verification of Practicum Activity**

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Practicum Title A Metacognitive Approach to Written Language Instruction For Primary Learning Disabled Students

Student's Name Madeline Fisher Kuhns

Program Site Ft. Lauderdale Date 20 June 1989

Observer's Name Lucia M. Tyler
(please print--------and sign)

Observer's position Principal Phone # 011-53-99-2265

Observer's comment on impact of the project (handwritten): In the end the students did in understanding of written language far in excess of what would have been expected. The pre post testing documented decided, significant gains - especially impressive for L.D. students with strong implications for the regular school program.



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# CHAPTER I

# PURPOSE

## Background

This practicum was implemented in an elementary school located on a United States naval base, which is situated on an island. The 7,000 base residents are restricted to the base itself which occupies an area of approximately 45 square miles. A large concentration of land mine fields afford residents an even smaller occupancy area. The isolation and restrictions of the base are responsible for the creation of a unique microcosm.

The elementary school serves students in kindergarten through grade six and has a population of 650. The children are dependents of military personnel, civilians working for the federal government, and private contractors. Because the United States government provides housing for all base residents and at least one parent is employed, all students come from a middle-class background.

Special education services for students with mild to moderate handicaps are provided by one speech therapist and three special education teachers. Presently, 38 students are enrolled in special education classes. Twenty-six of those students participate in Learning Impairment classrooms for children who are mentally retarded, learning disabled or emotionally disturbed.

The eligibility criteria for special education is mandated by a federal instruction which is in compliance with Public Law 94-142. The criteria for learning impairment are:

> Students whose measured academic achievement in math, reading, and language is adversely affected by underlying handicapping conditions including intellectual deficit and/or informational processing deficit and/or developmental adaptive behavior deficit. This does not include students whose learning problems are due primarily to visual, auditory, or motor handicaps, emotional disturbance, environmental deprivation, or English as a second language.

"Adversely affected academic achievement" is defined as achievement in math, reading, or language which is near or below the tenth percentile (for students of above average mental ability, near or below the 35th percentile).

An "information processing deficit" is defined as a disorder in perception, memory, processing, or production of information.

Five students enrolled in the Learning Impaired program were selected as the target group for this practicum. Each student has intellectual ability which falls in the average range on an individually administered Intelligence Quotient (IQ) test. The students, who are in third and fourth grade, attend the learning impairment classroom for reading and written language, which means that their achievement in those areas falls around or below the tenth percentile on norm-referenced academic achievement tests. These students, who have all been retained, are presently reading on an ending-second or beginning-third grade reading level.

The author has been a special education teacher for 19 years at the preschool and elementary levels. She has had experience with students who are mentally retarded, learning disabled, emotionally disturbed, and communications impaired. In her present capacity she is responsible for teaching primary level (Kindergarten through third grade) learning impaired

children. She is also a member of the Case Study Committee(CSC), which is responsible for the processing of referrals of students suspected of having handicaps. In addition, the author is a member of the multi-disciplinary team responsible for the assessment of students referred to the CSC. She has had nine years of experience administering tests, including: norm-referenced and criterion-referenced achievement tests in all academic areas; information processing tests; oral language development tests; and fine and gross motor development tests.

Two of the students in the target group are currently enrolled in the author's class. The other three students attend the intermediate-level learning impairment class. For the purposes of this project, the author will teach written language to all five of the students, each day, for thirty-minute periods. The intermediate-level learning impairment teacher will continue to teach reading and spelling to her 3 fourth-grade students.

Identification of the Problem

Because learning disabled students are typically deficient in reading skills, reading

instruction generally userps language instruction time, leaving little, if any, time for writing practice (Graves, as cited by Moran, 1988). In another study, Graves (1985) noted that even in elementary classrooms, students, on the average write once every eight days.

Yet, written language instruction continues to appear on the Individual Education Plans (IEP) of learning disabled students and time is allocated for this instruction. For each member of the target group, in fact, 30-40 minutes of instructional time in the special education classroom per day is designated to be spent on written language. Yet, these five students, who are of average intelligence, continue to exhibit severe deficits in written language. The following table illustrates the deficits evidenced by these students on the Test of Written Language (TOWL) administered prior to the implementation of this practicum project. Based on their intellectual abilities, all students should be performing at the 50th percentile with standard scores of 10.

TEST OF WRITTEN LANGUAGE - PRETEST RESULTS

| | STUDENTS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MB | | WP | | DS | | MS | | CT | |
| SUBTESTS | PR | SS | PR | SS | PR | SS | PR | SS | PR | SS |
| VOCABULARY | 9 | 6 | 1 | 3 | 25 | 8 | 25 | 8 | 2 | 5 |
| Thematic Maturity | 63 | 11 | 63 | 11 | 9 | 6 | 25 | 8 | 9 | 6 |
| Spelling | 25 | 8 | 16 | 7 | 5 | 5 | 25 | 8 | 25 | 8 |
| Word Usage | 25 | 8 | 25 | 8 | 25 | 8 | 16 | 7 | 9 | 6 |
| STYLE | 25 | 8 | 6 | 5 | 5 | 5 | 9 | 6 | 16 | 8 |

PR = Percentile Rank SS = Standard Score

This practicum project will seek to lower the discrepancy between the expected scores and attained scores of these students in deficit areas by at least one standard score point.

An examination of how time designated for written language instruction is actually spent may shed some light on the cause of the problem. In the author's classroom, when a student's IEP indicates 150 minutes per week be spent on written language, typically, the student would spend 90 minutes on spelling instruction, 40 minutes on language mechanics, and 20 minutes involved in the

process of writing. In an interview (Appendix A:78) with the intermediate-level learning impairment teacher (Culbreth,1989), she indicated that she spends written language instruction time on spelling, parts of speech, punctuation, and writing and expanding sentences. The latter, she noted, accounts for approximately 15 minutes per week. Research suggests that the models mentioned above are not atypical of what happens in traditional special education classrooms. Englert and Raphael (1988) note that ". . .most remedial writing programs have focused on mechanical or transcription skills . . .". Bos (1988) states, ". . . writing curricula in special education classes tend to make instruction in these writing conventions (grammar and spelling concepts) the major if not exclusive focus of instruction." After interviewing eight special education teachers, Englert (1987) discovered that only two of the eight provide more than once-a-week writing opportunities.

With instruction centered on the grammatical and mechanical features of writing, often in

isolation from the writing process itself, and with little opportunity to write, it is no wonder that the five students in the target group have obtained deficient scores on so many subtests of the TOWL. Yet, as Graves (1985) points out, students in the regular classroom are receiving similar types of service delivery models. These students are able to achieve in the area of written language, while their learning disabled peers are not. Harris and Graham (1985) write:

> Both anecdotal reports and research conducted primarily with elementary-age students reveal that learning disabled (LD) students score significantly lower than normally achieving students on a variety of written language measures.

What separates these two groups in their abilities to learn written language?

In the field of learning disabilities, much of the research in the 1980's has focused on examining the metacognitive abilities of handicapped students. Metacognition, which literally means thinking about thinking, is divided by Brown (cited by Slife, Weiss, and Bell, 1985) into two components: "knowledge about cognition" and "regulation of cognition." "Knowledge about cognition," note Slife, Weiss, and Bell (1985),

"refers to stable and statable information about one's own cognitive processes." "Regulation of cognition," they state, "refers to the planning, monitoring, and checking activities necessary to orchestrate cognition."

This research suggests that learning disabled children lack the metacognitive awareness necessary to control their own learning (Slife, Weiss, and Bell, 1985; Gerber, 1983; Baker, 1982; deBettencourt, 1987). Learning disabled students may, in fact, not know how to learn. Relating metacognitive awareness specifically to the writing process, Englert and Raphael (1988) state:

> Exceptional Students tend to lack the metacognitive control related to strategy awareness, implementation, and regulation. For example, LD students are less successful in regulating their comprehension and fail to monitor or correct the potential confusions in their own and others' texts. This inability to detect inconsistencies and to imagine the confusion of readers negatively impacts their ability to successfully reread, monitor, and revise texts.

In order to examine the metacognitive abilities necessary for effective writing, one must first look at the cognitive skills required for effective written communition. The ability to communicate in clear,

precise language is essential. In other words, the writer must possess enough knowledge about the syntactical, morphological, and semantic features of language to write in complete sentences and use words which convey the intended message. To be able to write effectively, the writer must, also, possess knowledge about the mechanical conventions of the language, such as spelling, punctuation, capitalization, and handwriting. These cognitive skills, which have been the major focus of instruction in the special education classroom, are essential to effective written communication. What, then, are the metacognitive awarenesses necessary for competent writing ability?

This author contends that, first and foremost, the writer must be aware that the purpose of writing is communication. The writer must understand that written communication is different from oral communication in that the receiver of the message is, most often, not present. It is essential, for effective communication, that the writer possess the ability to monitor the written product by continually, throughout the writing process, switching roles

between writer and reader, between sender and receiver of a message. Writers must be aware of what they know and do not know about their cognitive abilities , including: knowledge about the topic, planning, organizing, the audience; rules for syntax, morphology, capitalization, punctuation, spelling, and handwriting. The writer must know how, when and where to find what is not known. The writer must be aware that learning to write is not something that just happens but requires effort on the part of the learner. Finally, the writer must possess effective strategies to know when and how to employ this knowledge.

An assessment of the metacognitive abilities of the five students in the target group was achieved by obtaining written language samples from the students, having the students correct the samples, and interviewing the students.

The initial and corrected versions of each student's writing sample were assessed in the following manner.

1. The number of incomplete sentences was calculated. A sentence was considered incomplete if:

a. it did not contain a subject and predicate;

b. words were omitted;

c. words were added;

d. it was a run-on sentence (run-on sentences were counted as one incomplete sentence for each complete thought in the run-on sentence).

2. The total number of words was calculated. A word used more than one time, or a different form of the word, was counted once.

3. The number of punctuation errors was calculated.

4. The number of spelling errors was calculated. (When the students revised their original samples, they were instructed to circle any words which they knew were spelled incorrectly but did not know how to spell. In calculating the number of spelling errors for the revised writing sample, two circled words were counted as one error.)

5. The number of capitalization errors was calculated.

In order to determine whether or not the students possess the metacognitive ability to regulate their cognition, a comparison of the original and revised writing samples was made. The percentage of improvement for each of the five criteria noted above was derived. The following chart illustrates the results of this comparison.

WRITTEN LANGUAGE SAMPLE EVALUATION - PRETEST

| | MB | WP | DS | MS | CT |
|---|---|---|---|---|---|
| Original-Incomplete Sentences | 5 | 4 | 2 | 7 | 6 |
| Revision-Incomplete Sentences | 4 | 4 | 2 | 7 | 5 |
| Percentage Completed | 20 | 0 | 0 | 0 | 17 |
| Original - Number Of Words | 29 | 34 | 19 | 31 | 15 |
| Revision - Number Of Words | 29 | 34 | 19 | 32 | 15 |
| Percentage Of Increase | 0 | 0 | 0 | 3 | 0 |
| Original - Punctuation Errors | 5 | 3 | 3 | 5 | 4 |
| Revision - Punctuation Errors | 5 | 3 | 3 | 5 | 3 |
| Percentage Corrected | 0 | 0 | 0 | 0 | 25 |
| Original - Spelling Errors | 10 | 4 | 6 | 9 | 1 |
| Revision - Spelling Errors | 8.5 | 3.5 | 5 | 8.5 | 1 |
| Percentage Corrected | 15 | 12 | 16 | 11 | 0 |
| Original-Capitalization Error | 3 | 3 | 3 | 4 | 5 |
| Revision-Capitalization Error | 3 | 3 | 3 | 4 | 5 |
| Percentage Corrected | 0 | 0 | 0 | 0 | 0 |

Further evaluation of the students' metacognitive awareness of written language was conducted by interviewing each of the students prior to implementation of this project (Appendix B:80). Three of the interview questions were intended to tap this area of the students' knowledge.

The first question, "Why do people need to learn to write?", was intended to ascertain whether or not the students were aware that writing is a form of communication. Any answer indicating communication to oneself (eg. writing a grocery list or diary) or others (eg. writing letters, books, notes) was counted as a positive response to this question.

The fourth interview question, "If you were to teach a first grader how to write a story, what would you tell him(her) that would make him(her) a better writer?", and the fifth interview question, "When you fixed up your story, what did you look for?", were asked to ascertain the students' metacognitive ability to regulate their cognition. Responses indicating regulation of cognition were counted as acceptable responses. For example, references by the students

to the mechanics of writing, and the sense, or quality of the written product were considered positive responses to these questions.

The following table illustrates the number of acceptable responses to the interview questions noted above.

INTERVIEW RESULTS - PRETEST

| | MB | WP | DS | MS | CT |
|---|---|---|---|---|---|
| Question One | 2 | 0 | 0 | 1 | 2 |
| Question Four | 1 | 0 | 2 | 0 | 2 |
| Question Five | 1 | 2 | 1 | 2 | 1 |

Question two, "Outside of school, do you ever write letters, notes, stories, reports, books, or in a diary?", and question three, "Are you a good writer?", were asked to assess the students' attitude toward writing. The author assumed that students with a more positive attitude toward writing would engage in more writing experiences more often. Acceptable responses to question two were those that occured in the last month. The following chart indicates the number of writing experiences by the students and their assessment of their writing ability.

INTERVIEW RESULTS - PRETEST

| | MB | WP | DS | MS | CT |
|---|---|---|---|---|---|
| Question Two | 1 | 4 | 3 | 1 | 1 |
| Question Three | no | yes | no | no | no |

The problem addressed in this practicum was the severe deficit in written language achievement exhibited by the five students in the target group. It was the author's contention that the underlying cause of the problem is twofold: lack of writing experience, and lack of metacognitive awareness about the writing process. Furthermore, the author contended, these deficiencies resulted in a poor attitude toward writing. With that in mind, this project was intended to raise achievement scores in written language and promote a more positive attitude toward writing by increasing the metacognitve awareness of each student in the target group and providing more writing experiences.

Outcome Objectives

It was intended that, by the end of this practicum project, each student in the target group will have shown improvement in three general areas.

First, each student will have improved his or her metacognitive awareness of the writing process. Second, each student's attitude toward written language will have improved. And finally, as a result of broadened metacognitive ability, the student's cognitive skill level will have increased. The following outcome objectives demonstrate how improvement in these general areas were measured.

Metacognitive Outcomes

At the end of the ten-week period of implementation, each student in the target group will:

1. increase by fifty percent, the number of incomplete sentences completed, as measured by the difference between the percentage of sentences completed during the correction of the pre- and post-written language samples;
2. increase by twenty percent, the number of different words used after rewriting, as measured by comparing the percentage of increase from the number of words used in the written language sample to the correction of the written language sample during pre- and post-testing;

3. increase by fifty percent, the number of punctuation, capitalization, and spelling mistakes corrected, as measured by comparing the percentage of mistakes corrected in the pre-written language sample to the percentage of mistakes corrected on the post-written language sample;
4. increase by three, the number of reasons expressed for people needing to learn to write, as measured by a comparison of the number of reasons expressed during the pre- and post-interviews;
5. increase by six, the number of statements verbalized by the student expressing awareness of the writing process, as measured by a comparison of the number of statements given during the pre- and post-interviews in response to the questions,"If you were to teach a first-grader how to be a good writer, what would you tell the student?" and "When you fixed up your story, what did you look for?"

Attitudinal Outcomes

At the end of the ten-week period of implementation, each student in the target group will develop a more positive attitude toward written language, as measured by an increase of two affirmative responses, from the pre-interview to the post-interview, to the following questions

Do you ever write letters?

Do you ever write notes to people?

Do you ever write stories?

Do you ever write reports?

Do you ever write books?

Do you ever write in a diary?

Are you good at writing?

Cognitive Skill Outcomes

At the end of the ten-week period of implementation, each student in the target group will increase his or her standard score on the Test of Written Language by one point (10 being the mean) in each of the following subtests areas:

Vocabulary

Thematic Maturity

Spelling

Word Usage

Style

## CHAPTER II

## Research and Solution Strategy

### Research

Research in the area of metacognition was triggered by Torgeson's (1977) characterization of learning disabled children as "inactive learners". Torgeson theorized that the primary deficit of the learning disabled is an inablity to actively engage in learning. He describes the inactive learner as one who processes information passively, does not engage in active use of strategies, and is unaware of his own abilities and processes. Torgeson attributes this inactivity to the learner's experiential history of repeated learning failures and frustrations. He theorizes that this experience makes the learner dependent on others and leaves the learner without the actual intent to learn.

Torgeson's theory was supported by research done by Nagle and Thwaite (1979) to determine

whether learning disabled children are more impulsive than normal children. Nagle and Thwaite compared the results of Kagen's Matching Familiar Figures Test (MFF) administered to 100 learning disabled children and 100 normally achieving children in the third and fourth grades. Students were evaluated in their abilities to respond accurately. The latency of their responses were measured, as well. Students were then categorized into one of four cognitive styles: impulsive, fast-accurate, slow-accurate, and reflective. Results of the study indicate that learning disabled students do not differ significantly in their cognitive tempo but do differ significantly with regard to their rates of error. Nagle and Thwaite conclude, "These findings suggest that learning disabled children are not more impulsive, but rather use poor strategic behavior in processing information."

Slife, Weiss, and Bell (1985) did a study which attempted to separate cognition and metacognition and demonstrate the metacognitive differences between learning disabled and regular

students on mathematical problem solving skills. Twenty-four learning disabled students were matched to 24 regular students with regard to their abilities to solve 10 arithmetic problems and their results on a standardized achievement test in mathematics. The subjects were matched without regard to age or grade level. Each subject was given a set of 10 arithmetic problems and after 10 seconds, the subjects were asked to predict how many they would answer correctly. The subjects then solved the problems. This procedure was repeated with increasingly more difficult problems until the subjects reached an accuracy rate of 60 percent correct. The subjects were then asked to mark which problems were correct and which were incorrect. This procedure was timed. The results were examined on three measures: accuracy of before-task predictions; accuracy of identifying correct and incorrect responses; and amount of time for the identification task. Results indicated that LD students were significantly less accurate in predicting the number of problems they could correctly solve and

in identifying which problems were solved correctly and incorrectly than the regular students, and the LD students did not take any less, or more, time. Slife et al. concluded that since the two groups were matched on cognitive factors, and the metacognitive differences were independent of cognitive skills, "This indicates two separate sets of skills and abilities with which the educator must contend."

To test Torgeson's theory that the learning disabled child's "inactivity" is due to an experiential history of repeated failures, Lines and Keenan (1981) studied the effects of three strategy training methods for metamemory with four groups of children: older LD students (11 and 12 years old); older non-LD students; younger LD students (9 and 10 years old); and younger non-LD students. Prior to and following strategy training, the students responded to a questionnaire designed to tap the students' metamemory knowledge with regard to strategy, task, and self-concept. Results indicated that with regard to self-concept, younger LD students

and older non-LD students were significantly more self-confident than older LD students. On the pre-test questionnaire, fewer younger LD students than older LD students responded that they had implemented a strategy to remember. During the post-test interview, significantly fewer younger LD students than younger non-LD students could think of another situation in which the memory strategy could be used. Lines and Keenan postulated that LD students may be strategically inefficient, as Torgeson theorized:

> . . . but for younger learning disabled children these (inefficiencies) may be more related to a lack of needed metamemory awareness and for the older learning disabled more closely tied to a lack of personal confidence in memory abilities.

These findings are significant in that the developmental nature of metacognition is recognized and the need for early intervention in metacognitive training is supported.

With studies showing that metacognitive ability is, in fact, separate from cognitive ability, deficient in learning disabled students, and developmental in nature, this author poses the following questions. Can metacognition be taught?

if so, would this knowledge generalize to other areas? And, what is the best technique for teaching these abilities?

In 1985 Reid and Borkowski (cited by Borkowski, Weyhing, and Turner, 1986) studied the effects of the attributional component in the metacognitive model. A comparison was made between the effects of three training conditions: an executive condition, an executive plus attributional condition, and a control condition. Students in the control condition received strategy training for paired association and sort recall tasks. Students in the executive condition received the strategy training as well as training in self-control. Students in the executive plus attributional group received strategy training, self-control training, and training designed to enhance antecedent and program-generated attributions. Attributional training included a discussion regarding the students beliefs about the causes of failure, the opportunity to successfully perform the task using the strategy, and discussion about the students beliefs

regarding their success. Students were tested on a transfer task three weeks and ten months after training. Results indicated that the students in the executive plus attributional training group scored significantly higher on the transfer task than the other two groups. Changes in their attributional beliefs persisted over the ten month period, whereas the other two groups had not altered these beliefs even after strategy and self-control training. The results of this study are important in that they show that metacognitive strategies can be taught, however, the conditions of training have a decided effect on generalization and maintenance.

Deshler and Schumaker (1986) have designed and validated an instructional strategy curriculum for mildly handicapped adolescents called the Strategies Intervention Model. Their Learning Strategies Curriculum is divided into three major strands which are based on the instructional demands of students in secondary school. The first strand is aimed at helping students obtain information from written material. This strand

includes strategies for word identification, visual imagery, self questioning, paraphrasing, interpreting visual aids, and multipass (a strategy for acquiring information from textbook chapers). The second strand is aimed at helping the student identify and store information. Strategies in this strand include: listening and notetaking, first-letter mnemonics, and paired-associates. The final strategy is aimed at helping the student with written expression and demonstration of knowledge. This strand includes strategies for sentence writing, paragraph writing, theme writing error monitoring and assignment completion.

In order to assure that the student becomes proficient in the use of the strategies a highly structured teaching method was adopted. In this method, students are first tested and informed about their strengths and weaknesses with regard to their learning habits. The students then make a commitment to learning the new strategy. In the second step, the strategy is described to the students and reasons for learning the strategy are explained. Next, the strategy is demonstrated by

the teacher while "thinking aloud". The students, then, use verbal rehearsal to learn the steps of the strategy. The students, next, practice the strategy on materials that are reduced in complexity, length, and difficulty level. When mastery criterion are met at this level, the students practice the strategy on materials that approximate those found in the regular curriculum. Following a post-test, which determines readiness to use the strategy outside of the controlled environment, the students are given the opportunity to generalize the strategies to actual classroom environments, so they can become truly independent learners. (Ossorio, 1988)

The learning strategies curriculum is taught to students from seventh through twelfth grade, three or four strategies per year. Over the course of seven years, each of the strategies was tested and each resulted in marked gains for the students. For example, students who learned the Mastery of Error Monitoring Strategy reduced the number of errors from one in every four words to one in every 33 words. The implementation and

success of this program in a school setting is promising because it demonstrates that teaching metacognitive strategies to the learning disabled is viable, practical and worthwhile.

Many studies have been done which explore the efficacy of including metacognitive training in the curriculum of the learning disabled. Few of these studies have focused on metacognition, specifically, in the area of written language. The remainder of the research explored in this chapter will focus on those studies.

Harris and Graham (1985) studied the effectiveness of a self-control strategy on two 12-year old LD students' composition skills. Each student received instruction for 45 minutes, two to three times per week for the duration of the experiment. Three variables, related to judgements on good quality writing, were chosen as the targets of instruction. These variables included the number of different verbs, adverbs, and adjectives. The students were ~~t~~asked to write a story about a preassigned picture. Students were instructed using a combination of

strategy training, self-regulation training, and instruction in the significance of these activities. Self-regulation included criterion setting, self-instructions, self-assessment, and self-reinforcement. Strategy training was taught using the methods described in the Strategies Intervention Model. The five steps of the strategy were:

1. Look at the picture and write down good action words.
2. Think of a good story idea to use my words in.
3. Write my story - make sense and use good action words.
4. Read my story and ask -
   Did I write a good story?
   Did I use action words?
5. Fix my story - Can I use more good action words?

Results of the study showed that each student significantly increased the number of verbs, adverbs, and adjectives used in their stories, as well as the total number of words used. In terms of the quality of their stories, independent raters judged the stories written after training as substantially better than those written during baseline conditions. Generalization, tested by having the students write stories in the resource room, was evident for both students. Graham and

Harris conclude:

> The results of this study support the hypothesis that a self-control strategy training approach can be used to teach composition skills to learning disabled students, and that such training improves the quality of their compositions.

In another study by Graham and Harris (cited by Graham and Harris, 1988), students were taught a strategy for advanced planning and generating story content. Prior to writing, students were instructed to respond to a series of self-questions concerning the setting of the story, the main character's goals and efforts to achieve the goals, the ending and the main character's reactions or emotional responses. Following training, students' stories received higher quality ratings by independent raters and contained significantly more and varied story elements. These gains generalized to other settings and were maintained over time. Furthermore, following training, stories written by the learning disabled students were indistinguishable from those written by normally achieving students.

Graham and MacArthur (cited by Graham and

Harris, 1988) studied the effects of a strategy for revising essays composed on the word processor taught to a group of fifth- and sixth- grade students. After completion of their essays students were taught to respond to the following prompts:

1. Read your essay.
2. Find the sentence that tells what you believe - Is it clear?
3. Add two reasons why you believe it.
4. SCAN each sentence (Does it make sense? Is it connected to my beliefs? Can I add more? Note errors.)
5. Make changes on the computer.
6. Re-read the essay and make final changes.

Following training, students essays were judged to be of higher quality and they made two to five times as many revisions as they did during baseline conditions.

Englert, Raphael, Fear, and Anderson (1988) conducted a study designed to examine the metacognitive knowledge LD students have about writing expository texts and compare this knowledge to student performance. In this study, 35 students from three ability groups (learning disabled, low-achieving, and high-achieving) were interviewed about their metacognitive knowledge

about the expository writing process and text organization. Students were then asked to write two types of expository texts, compare/contrast and explanatory. A comparison of the interviews of the learning disabled group and the high achieving group indicated that the learning disabled students were significantly less aware of modeled writing strategies, steps in the writing process, strategies for presenting expository ideas, and procedures for selection and integrating information. In a comparison between the learning disabled and the low-achieving students, significant differences were found, with the learning disabled more deficient, in their abilities to control and regulate the writing process, use organizational strategies or text structures to generate or group ideas and monitor the quality of texts. When a comparison was made between the students metacognitive awareness and performance, results indicated that the strongest relationship exists between performance and the following metacognitive abilities: awareness of a modeled writing strategy, knowledge of a process

for monitoring the completeness of texts, and categorizing. Englert et al. conclude that:

> First, LD students differed from other achievement groups in their knowledge of strategies related to the writing process and in their knowledge of how to organize ideas. Second, metacognitive knowledge was positively correlated to students' written performance.

Solution Strategies

Prior to implementation of this practicum project, a letter of introduction and a request for permission to assess was sent to each child's parents (Appendix C: 82 ). Arrangements were made with the intermediate-level learning impairment teacher for her three students to attend the author's classroom at an agreed-upon time.

Prior to implementation baseline data was obtained. Students were given the Test of Written Language (TOWL), developed by Hammill and Larsen (1986) in a group setting. This test was chosen because it is well standardized and is the only test available for this level student which actually includes a written-language sample. The Vocabulary, Thematic Maturity, Spelling, Word Usage, and Style Subtests were scored for each child. The handwriting subtest was not scored

because this area of written language was not addressed in this project. In order to assure the validity of the post-test, an additional written language sample was obtained for each child. For this sample the children were asked to describe what they had done in the morning before school. This sample was scored for number of complete sentences, number of words, and numbers of spelling, punctuation, and capitalization errors. The following day, students were asked to look over their writing samples and make any corrections. This revision was scored based on the percentage of improvement in all of the above areas. Students were interviewed in order to assess their metacognitve awareness and attitudes toward writing.

Evidence that metacognitive knowledge about the writing process improves performance, learning disabled students are deficient in metacognitive abilities, and learning disabled students lack experience in the writing process itself, strongly suggests that inclusion of these factors in a written language program would promote positive

change. The author proposed a program with the following features.

In order to provide sustained writing practice and to demonstrate the idea that writing is a form of communication, students engaged in a written dialogue, for five minutes daily, with another student partner, beginning with week two. During weeks two through six, the topics of the dialogue were not directed. Following week six, students were assigned information to be obtained from their student partners, for example, find out about your partners' family, find out what your partners like to do in their spare time. Throughout the project, students were told how to spell any words they requested.

Students were taught a strategy for monitoring their written product. In order to remember the steps of the strategy, students were taught the mnemonic SIPS-C, each letter standing for a word signaling prompts the student used in the revision stage. The students were told to pretend they were reading the story for the first time and then apply this strategy.

| | |
|---|---|
| Sense | Does the story make sense? |
| | Have I used complete sentences? |
| | Did I leave out any words? |
| | Did I write any words twice? |
| Interesting | Is the story interesting? |
| | Could I use better words to describe how something is happening? |
| | Could I use more adjectives? |
| Punctuation | Did I use proper punctuation? . ? ! , " " ' |
| Spelling | Did I spell all the words correctly? |
| Capitalization | Did I use capital letters to: |
| | begin each sentence? |
| | begin names of people, places, books, days, months, holidays? |
| | Did I capitalize any letters that I shouldn't have? |

The strategy was taught using the method described by Deshler and Schumaker (1986) in their Strategies Intervention Model. Based on information obtained during pre-testing, students were informed of their strengths and weakesses regarding their learning habits. For example, a student was told that he was good at finding spelling errors but needed to work on writing in complete sentences. Each student was asked to make a commitment to learning the strategy in order to improve weaknesses and become a better writer. The students put this commitment in writing. The teacher described the steps of the strategy and informed the students about why they were learning the strategy, what they could expect once they had learned it, and situations in which the strategy would be useful. The teacher, then, modeled the strategy on a piece of written work containing appropriate errors while thinking aloud. Using a verbal rehearsal technique, the students committed the steps of the strategy to memory. The teacher then introduced the first writing project, described later, and guided the

students through the steps of the strategy. During the second writing project, the students practiced the steps of the strategy until mastery level was reached. Students demonstrated mastery during the final writing project.

The author developed this strategy for several reasons. First, the students got practice in switching roles between writer and reader, a metacognitive awareness, the author contends, essential to the writing process. The second reason this strategy was used was to help the students become aware of their cognitive abilities, to recognize what they knew and did not know about writing complete sentences, using effective vocabulary, spelling, punctuation, and capitalization. The author chose to begin metacognitive training on what is essentially the end of the writing process. Revision is the last step in writing, following planning and organization. It should be noted that beginning at this point was intentional. It was the author's contention that unless students understand the outcome of planning and organizing,

those two processes become meaningless. For this reason, a strategy designed to take students to their goal, a finished written product, was chosen by the author as a place to begin.

In order to promote the awareness that writing is a form of communication in which the receiver is not always present, the first two assignments were chosen. The products of both assignments were in the form of books, which were submitted to the school library to be checked out by other students. It was the goal of the author to motivate students by this task and help them realize that their written product is intended to be communicated to an actual audience and that the audience is composed of other students.

In order to center the controlled practice on material that was reduced in complexity, length, and difficulty level, the first writing task was the completion of a story with each student writing a separate section. A story pattern technique, developed by Smith and Bean (1983), was employed. In this technique, students were made aware of the recurring patterns in some stories.

For this project, " The Scared Little Rabbit", (Durr, LePere, Pikulski, Bunyan, 1981), a story found in the students' basal readers, was used. The story was read to the students, the pattern noted, and a visualization of the story structure was drawn. The students then created a new story using the same pattern, with different characters, setting, and initiating circumstance. With the planning and organization of the story predetermined, the students were able to focus on the writing process itself. Each student was assigned one section of the pattern, which, eventually, became one page of the book. After drafting and revising the story, using the strategy, students illustrated their pages, agreed upon a good title, designed the cover and title page, and recorded the story on a tape. The completed book and tape were submitted to the school library for check-out.

The second project, designed to be more complex, was a book of projects children can ~~make~~ made. Each student thought of a project to be included in the book and then wrote directions on how to complete the project. After revision, using the

strategy, the students thought of a title for the book, designed a cover and title page, made an example of their projects to be included in a pocket beside each set of directions, and submitted the book to the school library for check-out.

The final project, one which was intended to closely approximate a task encountered in the regular classroom, was a written assignment from the regular classroom, assigned for the students by their homeroom teachers. This project was coordinated with each child's homeroom teacher to assure that the assignment was appropriate and timely. The students completed these assignments in the resource room, using the strategy.

The final week of the project was devoted to gathering comparison data. The identical set of assessments administered during the first week of the project was readministered. The results of this comparison are described in Chapter IV.

# CHAPTER III

## Methodology

This practicum was completely implemented by the author. The five students selected as the target group met with the author for 30-minute sessions daily during the ten-week implementation period. Prior to implementation, permission to test was obtained from the parents of the five subjects. A letter containing an explanation of the plan and its proposed benefits was sent to parents, as well (Appendix C:82).

Materials required for carrying out the plan were readily available at the school. They included: pencils, story paper, colored markers, plastic document protectors, document binders, chart displaying strategy, individual strategy charts, dictionaries, a Franklin Spell Master, a tape recorder, blank tapes, Tests of Written Language, and the Student Interview Form.

This plan was implemented in accordance with the following time line.

Weeks 1-2: Introduction of the Strategy

The students were informed of their strengths and weaknesses, in writing, which triggered a discussion of the purposes of written communication. The students admitted that they preferred to have their weaknesses written down rather then announced to the class. The following list of circumstances, when written language is the most effective form of communication, was generated by the group.

Written language is most effective:

a. for privacy;
b. when a message needs to be given to a large group of people who are not present at the same time (such as a sign, a story, a book);
c. when a message needs to be sent to someone far away and time is not a factor (such as a letter);
d. when you need to remember something (such as a grocery list);
e. when a message needs to be sent and talking is not permitted (such as in class)

f. when you don't have time to talk to someone at the moment (such as a note);

g. when someone is deaf.

The students concurred that written language is important to learn and each student made the following commitment, in writing. "I think writing is important. I am making a commitment to learn to be a good writer." Students were able to identify with the concept of making a commitment (working hard at something, without giving up, over an extended period of time), because each of their fathers had made a commitment to serving in the United States Navy.

The teacher described the strategy, including the steps of the strategy, the reasons for learning the strategy, results students could expect from learning the strategy, and situations in which the strategy would be useful.

The teacher modeled the strategy, while verbalizing her thoughts, on a piece of written language containing appropriate errors. The students had a difficult time watching the

strategy, in its entirety, being modeled. They wanted to participate.

The concept of learning something automatically was discussed. The students were highly motivated to learn the steps of the strategy, automatically. A verbal rehearsal technique was used to memorize the steps, beginning with the first step and adding another, until the entire strategy was memorized by each student. This process, which took two and a half days, was longer than had been anticipated. The students completed a worksheet (Appendix D:86), on which the first letter of each strategy step was completed, to aid them visually. This worksheet and the written commitment were kept in a plastic document protector and maintained in the students' folders throughout the project.

Weeks 3-6: Controlled Practice

Students spent five minutes, each day, communicating with a student partner in writing. Enthusiasm for this activity was maintained throughout the ten-week period.

The teacher introduced the story-pattern format (Smith, Bean, 1983), by reading "The Scared Little Rabbit" (Durr,LePere, Pikulski, Bunyan, 1981), a story from the basal reading program, cuing the students to listen for the pattern, and drawing a visualization of the story on the chalkboard. Using a story-planning worksheet (Appendix E:88 ), the students, as a group, decided on the characters, introductory event, repeated pattern, and ending for the story. The students were instructed to write their individual sections of the story without worrying about spelling, capitalization, or punctuation. The story was, then, rewritten using the strategy.

The process of teaching the students to revise their written work took longer than had been anticipated. The author believes that the students, whose level of critical thinking had been at the comprehension and knowledge stages, were now being challenged to perform at the application level (Bloom, cited by Ossorio, 1988).

Prior to each step of the revision process, the students were instructed to pretend they were

reading the story for the first time. Following, is a description of how each step of the revision process was approached.

Sense - The completed story was read to the students by the teacher. The questions the students were cued to ask themselves, were asked by the teacher, periodically, as these questions applied to the text being revised.

Interesting - A discussion, centered on the purpose of making written text interesting, began this section of the revision process. The students agreed that if a story was not interesting, no one would want to read it. If no one read it, they concluded, there would be no communication and writing would be a waste of time. The teacher described how to make a story more interesting by using more descriptive words, more adjectives and adverbs. The first sentence of each student's section of the story was written on the chalkboard, and ways to

make the sentence more interesting were generated by the group. The students, then, independently, rewrote their sections of the story and each thought of ten words that could be changed to make the story more interesting.

Punctuation - The class reviewed the punctuation marks and the rules for using them. A punctuation worksheet, made up of sentences taken from the students' story, (Appendix F:90) was completed. Six of the sentences were completed by the group together, and the remaining ten were completed by the students independently. Following completion of the worksheet, the students revised each section of the story. Students who had difficulties were allowed to work with a partner or receive help from the teacher.

Spelling - Students discussed ways to find the correct spelling of words. The following list was generated by the class.

When you don't know how to spell a word, you can:

a. ask someone;

b. use the Franklin Spelling Ace;

c. look in the dictionary.

The students, then, revised their sections of the story using the strategies noted for finding the correct spelling.

Capitalization - The rules of capitalization were reviewed. Students were instructed to guard against capitalizing words which do not need to be capitalized. Following this discussion, students revised their sections of the story with regard to capitalization.

Because this project was not intended to improve handwriting or copying ability, the author typed the revised story for the students. The students, then, each illustrated the pages they had written and tape-recorded their sections of the story. A title for the book was agreed upon by the group and students were assigned to design and illustrate the cover and title page and bind the

completed book. The book was submitted to the school library. The students took turns checking out the book. It should be noted, too, that the book continued to be checked out by other students in the school and did not remain in the school library for more than a day after it was submitted.

Because there was a need to assign each student a report-card grade for written language, the author devised a system to grade the students. Following the initial draft of each of the writing projects, the students received a paper indicating the number of errors for each section of the strategy in need of correction (Appendix G: 92 ). One-half of the students grade depended upon how many of the errors the student was able to find. The other half of their grade was based upon class participation. The students received a check for each contribution made in class discussions. Any disruptions in the class were deducted from the contributions. For example, no contributions would be an "F", one contribution would be a "D", two a "C", and so on. Students kept track of these sheets themselves.

Weeks 7-9: Continued Practice To Mastery

Beginning with week seven, the students spent five minutes per day communicating by note about preassigned topics (Appendix H:96 ) Following each of the five-minute periods, one of the student partners told the class what he or she had discovered about the other partner. The student response to this activity remained enthusiastic.

The teacher introduced the topic of the second book to be written, which was things to make. The students, individually, decided on what they would contribute to this book and wrote directions for the items to be made. For this project, the author had originally intended that the students would write the directions and then observe another student making the item. When the students wrote the first draft of their directions, however, the author noted that many steps were missing. So, instead of another student following the directions, the students made the items, themselves, and wrote each step as it was completed. This was considered the "sense" part of the strategy.

When the students revised their directions to make them more interesting, they were instructed to consider making their directions more specific. For example, if the direction was "Fold the paper", a more specific direction would be "Fold the paper the long way."

The remainder of the revision process was completed in the same manner as in the first project, without the initial class discussions. Students were encouraged to work with student partners and received help from the teacher, as needed.

After the students revised their directions, they illustrated the pages they had written and made a sample (or, in some cases, took a picture of the project) to be included in a book-pocket beside each set of directions. The students, as a group, decided on a title for the book. Students were chosen to illustrate the cover and title page, and bind the book. This book, too, was submitted to the school library for check-out.

Because the students had experience working

with the strategy and were motivated by the completion of their first book, this project took less time than had been anticipated.

Week 10: Promoting Generalization

For the final writing project, the students chose a writing assignment from their regular classes on which to work in the special education classroom. Two of the students chose thank-you letters they were required to write and the other three students chose to write sentences from their assigned spelling words.

The students completed these assignments and revised them using the strategy. This process took only two days.

The remainder of the week was spent brainstorming contexts in which the strategy may be useful and ways in which the strategy could be adapted to fit individual contexts. The students generated may ideas for book topics to be written in the future.

Week 11: Post-Testing

The final week of the practicum project was devoted to post-testing. Students were given the same battery of tests they had taken prior to implementation.

The chart, below illustrates the results of the Test of Written Language.

TEST OF WRITTEN LANGUAGE - POST-TEST RESULTS

| | STUDENTS | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MB | | WP | | DS | | MS | | CT | | | |
| SUBTESTS | PR | SS | PR | SS | PR | SS | PR | SS | PR | SS | | |
| VOCABULARY | 16 | 7 | 2 | 4 | 25 | 8 | 25 | 8 | 16 | 7 | | |
| Thematic Maturity | 84 | 13 | 91 | 14 | 25 | 8 | 63 | 11 | 63 | 11 | | |
| Spelling | 25 | 8 | 25 | 8 | 9 | 6 | 25 | 8 | 16 | 7 | | |
| Word Usage | 50 | 10 | 37 | 9 | 37 | 9 | 16 | 7 | 9 | 6 | | |
| STYLE | 50 | 10 | 14 | 7 | 50 | 10 | 25 | 8 | 37 | 9 | | |

PR = Percentile Rank SS = Standard Score

A written language sample was, again, obtained from each student. The following day the students were asked to correct their writing samples. The initial writing sample and the corrected version were scored based on the criteria described in Chapter I.

The results are illustrated in the chart below.

WRITTEN LANGUAGE SAMPLE EVALUATION - POST-TEST

| | MB | WP | DS | MS | CT |
|---|---|---|---|---|---|
| Original-Incomplete Sentences | 0 | 8 | 0 | 3 | 2 |
| Revision-Incomplete Sentences | 0 | 2 | 0 | 3 | 0 |
| Percentage Completed | NA | 75 | NA | 0 | 100 |
| Original - Number Of Words | 30 | 51 | 17 | 31 | 23 |
| Revision - Number Of Words | 35 | 64 | 23 | 32 | 27 |
| Percentage Of Increase | 17 | 25 | 30 | 3 | 17 |
| Original - Punctuation Errors | 5 | 11 | 3 | 7 | 3 |
| Revision - Punctuation Errors | 3 | 3 | 2 | 1 | 2 |
| Percentage Corrected | 40 | 73 | 33 | 86 | 33 |
| Original - Spelling Errors | 10 | 7 | 7 | 5 | 1 |
| Revision - Spelling Errors | 4 | 2 | 2 | 5 | 1 |
| Percentage Corrected | 60 | 71 | 71 | 0 | 0 |
| Original-Capitalization Error | 10 | 3 | 6 | 7 | 3 |
| Revision-Capitalization Error | 6 | 1 | 3 | 1 | 1 |
| Percentage Corrected | 40 | 66 | 50 | 86 | 66 |

The students were, then, interviewed with the same questions asked prior to implementing the project. Their responses were evaluated in the same manner as described in Chapter I. The following table

represents the results of the tabulation.

INTERVIEW RESULTS - POST-TEST

| | MB | WP | DS | MS | CT |
|---|---|---|---|---|---|
| Question One | 4 | 3 | 11 | 2 | 5 |
| Question Two | 2 | 3 | 9 | 3 | 2 |
| Question Three | yes | yes | yes | no | no |
| Question Four | 8 | 1 | 4 | 4 | 3 |
| Question Five | 5 | 5 | 9 | 5 | 5 |

Two additional questions were asked in the interview: Did the strategy help you? and Should I teach this strategy to other students? Four of the five students indicated that the strategy had helped them. All the students felt that strategy should be taught to others.

During the course of implementation, student progress was monitored each time the students were required to rewrite. A comparison was made in each of the steps of the strategy with the previous rewriting task. Because the students received help, these comparisons were regarded cautiously. The percentage of improvement in each step of the strategy for the

three writing projects are depicted on the chart that follows.

PERCENTAGE OF IMPROVEMENT

| | MB | | | WP | | | DS | | | MS | | | CT | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 |
| S | 100 | 100 | 100 | 100 | 100 | - | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| I | 50 | 31 | 34 | 16 | 62 | 40 | 44 | 36 | 41 | 28 | 69 | 60 | 12 | 130 | 59 |
| P | 100 | 85 | 100 | 100 | 85 | 100 | 64 | 100 | 100 | 71 | 64 | 100 | 100 | 67 | - |
| S | 82 | 100 | 100 | 80 | 86 | 100 | 64 | 100 | 100 | 71 | 80 | 66 | 100 | 60 | 100 |
| C | 64 | 100 | 100 | 100 | 100 | 100 | 60 | 100 | 100 | 100 | 100 | 100 | 100 | 80 | 100 |

S - number of incomplete sentences completed
I - increase on number of individual words
P - punctuation errors corrected
S - spelling errors corrected
C - capitalization errors corrected

1 - 1st writing project
2 - 2nd writing project
3 - 3rd writing project

Students whose percentage of improvement did not meet the projected goals, received individual help in the deficient area during the succeeding writing project. Such was the case for WP and CT, when they were working on making their writing more interesting, which was measured by counting the number of individual words. This would explain the tremendous increase on the second project and the ~~a~~ decrease on the third project, when they worked on their own.

Other mid-course deviations, such as the changes in time and presentation approaches, from the proposed plan have already been described in this chapter.

# CHAPTER IV

## Results

It was intended that, by the end of this practicum project, each of the students in the target group would have improved in three general areas. In order to best evaluate the results, each of the areas will be viewed separately.

### Metacognitive Outcomes

Metacognition was divided by Brown (cited by Slife, Weiss, and Bell, 1985) into two components: "regulation of cognition" and "knowledge about cognition."

The author contended that if the five students in the target group were taught a strategy to monitor their written products, it would enable them to regulate the cognitive skills they had already possessed. To test the effects of strategy training, a written language sample was obtained from each student prior to and following training. The students

were then asked to correct each of the samples the following day. If the students' metacognitive ability had, in fact, improved, they would be better able to correct their written products. To measure improvement in this area, a comparison was made between the percentage of errors corrected on the pre-writing samples and the post-writing samples. In addition, a comparison was made between the percentage of increase in the number of words.

After the ten-week period of implementation, it was hoped that each student would increase, by fifty percent: the percentage of incomplete sentences completed; the percentage of spelling errors corrected; the percentage of punctuation errors corrected; and the percentage of capitalization errors corrected. In addition, it was hoped, that each student would increase the number of individual words used after rewriting by twenty percent.

The chart that follows illustrates the percentage of improvement for each of the students on the pre and post writing samples.

PERCENTAGE OF IMPROVEMENT

| | MB | | WP | | DS | | MS | | CT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | PRE | PO | PRE | PO | PRE | PO | PRE | PO | PRE | PO |
| Completed Sent. | 20 | NA | 0 | 75 | 0 | NA | 0 | 0 | 17 | 100 |
| Increased Words | 0 | 17 | 0 | 8 | 0 | 30 | 3 | 3 | 0 | 17 |
| Corrected Punct. | 0 | 40 | 0 | 73 | 0 | 33 | 0 | 86 | 25 | 33 |
| Corrected Spelling | 15 | 60 | 12 | 71 | 16 | 71 | 11 | 0 | 0 | 0 |
| Corrected Capital. | 0 | 40 | 0 | 66 | 0 | 50 | 0 | 86 | 0 | 66 |

PRE = Pre-writing Sample PO = Post-writing Sample
NA = No errors in the initial writing sample

Although none of the students met the proposed goals, which may have been too ambitious, significant improvement is evident. Three of the students demonstrated improved ability to regulate cognition in every area measured. One student demonstrated improved ability in four of the five areas measured. The fifth student demonstrated improved ability in two of the five areas. These results indicate that strategy training appears to have a positive effect on improving the ability to regulate cognition.

Three of the five interview questions, asked prior to and following intervention, were intended to measure the students' knowledge of cognition. The

author proposed that the students would state three additional needs for written communication (in response to question one: Why do people need to learn to write?) and six additional references to regulation of cognition (in response to question four: If you were to teach a first-grader how to be a good writer, what would you tell the student? and question five: When you fixed up your story, what did you look for?). The chart, below, shows the number of acceptable responses to each of the questions asked before and after implementation.

INTERVIEW RESULTS

| | MB | | WP | | DS | | MS | | CT | |
|---|---|---|---|---|---|---|---|---|---|---|
| Question # | PRE | POS | PRE | POS | PRE | POS | PRE | POS | PRE | POS |
| One | 2 | 4 | 0 | 3 | 0 | 11 | 1 | 2 | 2 | 5 |
| Four and Five | 2 | 13 | 2 | 6 | 3 | 13 | 2 | 9 | 3 | 8 |

PRE = Pre-interview POS = Post-interview

Although only three of the five students met the proposed goal for question one, and three for questions four and five, all the students clearly demonstrated improved ability to verbalize their metacognitive knowledge of cognition. Once again, the goals may have been too ambitious.

The responses DS gave to question one show a dramatic improvement in his understanding of the purpose of written language. This comparison is typical of each of the students. During the pre-interview, DS gave the following response to the question, "Why do people need to learn to write?"

- so, when they grow up, they won't mess up in writing.
- you need to write in college and high school.
- to do your work.

Following implementation, DS gave this response to the same question.

- to sign a check
- to write checks
- to write stories and books
- to write pieces of a movie, like what they're going to say or do
- to make poems
- to make signs, like, if a cat or dog is missing
- the president of the United States has to do all that paperwork
- my dad works on ships. He has to write an order form to order the parts.
- to do your schoolwork and job
- if you're a newspaperman, you have to write what's going to be in the newspaper
- to write receipts
- when you die and you're real rich and you have property that you want to give to your family, you have to write a little thing
- to write letters
- in the Navy, you have to write your name on the pockets of your shirt

Attitudinal Outcomes

The author believed that improved metacognitive ability would result in a more positive attitude towards writing. It was believed that an improved attitude would be manifested by the students engaging, more often, in the writing process and viewing themselves as good writers.

The author proposed that, by the end of the ten-week period, the students would increase, by two (from the pre-interview to the post-interview),their affirmative responses to questions two and three: Outside of school, do you ever write letters, notes, stories, reports, books, or in a diary (the response to each item was recorded separately)? And, are you good at writing?

The comparison of the students' affirmative responses are shown on the chart below.

INTERVIEW RESULTS - QUESTIONS TWO AND THREE

| MB | | WP | | DS | | MS | | CT | |
|---|---|---|---|---|---|---|---|---|---|
| PRE | POS | PRE | POS | PRE | POS | PRE | POS | PRE | POS |
| 1 | 3 | 4 | 4 | 3 | 6 | 1 | 3 | 1 | 2 |

PRE = Pre-interview POS = Post-interview

These results show that one student exceeded the proposed goal, two students met the goal, one student improved, but did not meet the goal, and one student did not show any improvement. It is important to note, however, that WP, the student who showed no improvement, appeared to have a positive attitude prior to participating in the program. Noteworthy, too, is the fact that prior to implementation, one of the five students (WP) viewed himself as a good writer, and following implementation four of the five students viewed themselves as good writers. The author concludes that improved metacognitive ability does have a positive effect on attitude.

Cognitive Skill Outcomes

Finally, the author maintained that heightened metacognitive awareness would result in an improvement in cognitive skills. This outcome would be evidenced by an increase of one standard score point for each of the subtests administered on the Test of Written Language when a comparison is made between the pre-test and the post-test. The following chart shows that comparison.

TEST OF WRITTEN LANGUAGE - RESULTS

| SUBTESTS | MB | | WP | | DS | | MS | | CT | |
|---|---|---|---|---|---|---|---|---|---|---|
| | PR | PO | PR | PO | PR | PO | PR | PO | PR | PO |
| Vocabulary | 6 | 7 | 3 | 4 | 8 | 8 | 8 | 8 | 5 | 7 |
| Thematic Maturity | 11 | 13 | 11 | 14 | 6 | 8 | 8 | 11 | 6 | 11 |
| Spelling | 8 | 8 | 7 | 8 | 5 | 6 | 8 | 8 | 8 | 7 |
| Word Usage | 8 | 10 | 8 | 9 | 8 | 9 | 7 | 7 | 6 | 6 |
| Style | 8 | 10 | 5 | 7 | 5 | 10 | 6 | 8 | 8 | 9 |

PR = Pre-test scores PO = Post-test scores

On the Vocabulary Subtest, which is scored by calculating the number of words the student uses in the writing sample which contain seven or more letters, one student exceeded the goal, two students met the goal, and two students showed no improvement. This subtest can be compared to the "Interesting" portion of the strategy, the effects of which were evaluated in the written language sample by measuring the increased number of words used after revision. The three students who improved on this subtest also increased the number of words utilized on their corrected versions of the written language sample. One of the two students, who showed no growth on the Vocabulary Subtest, also showed no increase in the

number of words used on the corrected written language sample.

All students exceeded the goal for the Thematic Maturity Subtest. This subtest is scored by responding to questions about the contents of the writing sample (eg. Does the student give a title to the story? Does the student explain where the spacelings [pictured] come from? Does the story have a definite ending? etc.).

On the Spelling Subtest, which tests the student's ability to write dictated words, two students met the goal, two students remained the same, and one student regressed. The two students, who showed improvement in this area, also, improved in their ability to correct spelling errors when revising their written language samples. One of the students, who remained the same, showed regression in her ability to correct spelling errors when revising. The student, who regressed, also, showed no improvement in his ability to correct spelling errors on the revised version of his written language sample.

The Word Usage Subtest requires the student to complete a sentence, containing a blank, with a word

that is grammatically correct. On this subtest, one student exceeded the goal, two met the goal, and two remained the same. This subtest can be compared to the "Sense" portion of the strategy, the effectiveness of which was measured in the written language sample evaluation by counting the number of incomplete sentences completed. The three students who showed improvement on the Word Usage Subtest, also improved in their ability to write in complete sentences. In fact, two of those students had no incomplete sentences on the initial versions of their written language samples. One of the students, who showed no improvement on the Word Usage Subtest, also, showed no improvement in her ability to complete incomplete sentences when revising.

On the final subtest, Style, the student is required to provide punctuation and capitalization for sentences. One student met the proposed goal, while the four remaining students surpassed the goal. This subtest may be compared to the "Punctuation" and "Capitalization" portions of the strategy, the effects of which were evaluated by measuring the students ability to correct punctuation and capitalization errors when revising their written language samples.

It is interesting to note that all students improved in their abilities to correct these errors on their written language samples, as well.

Although all students did not meet the proposed outcomes set forth for cognitive skill improvement, an even greater implication exists. That is, there appears to be a direct correlation between heightened metacognitive awareness and the cognitive areas in which these awarenesses, specifically, are reflected. It seems, then, that training in metacognition is a practical, viable approach toward improving student performance in written language.

# CHAPTER V

## Recommendations

Because these results clearly indicate positive results from metacognitive training, and the enthusiasm for the program, by the students, remained high throughout the project the author intends to implement this program in its entirety. The only change recommended is in scheduling. The 30-minute period, five days per week, provided too little time to complete the five-minute written dialogue and work on strategy training.

The period of written dialogue was judged, by the author, to be an important aspect of the program for several reasons. First, the students remained enthusiastic about this portion of the class and, regularly, verbalized disappointment when the period was to end. Also, the author observed that, in the beginning, the students would whisper to each other communications they were unable to write or read. At the end of the

project, there was silence during this time period, indicating that the students were becoming more aware that their writing was going to be read by others and, therefore, taking more care in the manner in which they wrote. For these reasons the dialogue portion of the program would be maintained and, perhaps, lengthened to ten-minute periods.

So, the author proposes that, instead of five 30-minute sessions, written language instruction be given in three one-hour sessions.

Because the five students in the target group will all attend the intermediate-level learning impairment class next year, training in implementing the program will be given to the intermediate-level learning impairment teacher. This teacher maintained an interest in this program throughout the implementation period and indicated, strongly, that she would like to carry the program on next school year.

The results of this project will, also, be shared with the school level administration, the district level special education specialist, the

regional level special education coordinator, and the other special education teachers at the school. In addition, the author will make herself available for presentation of the findings during inservice training. The author will recommend inservice training be given to special education teachers in metacognition and its implications for teaching learning disabled students.

In addition, the author plans to develop and assess other metacognitive strategies to aid elementary level learning disabled students cope with commonly confronted difficulties. These may include: decoding skills, reading comprehension, arithmetic problem solving, spelling, memory, organization, and behavior.

Metacognitive learning theory may be the most exciting and promising approach to teaching and learning since the inception of special education. Continued research in this area may open the doors to finding new solutions for disabled learners. Educators may, finally, be able to define what is "special" about special education.

Although the research is recent, however, perhaps Confucius (cited by Bartlett, 1968) held the key to metacognitive learning theory, when he said, in the fifth century B.C.:

> When you know a thing, to hold that you know it: and when you do not know a thing, to allow that you do not know it - that is true knowledge.

REFERENCES LISTED

Baker, Linda. "An Evaluation of the Role of Metacognitive Deficits in Learning Disabled." Topics in Learning and Learning Disabilities." April 1982, pp.27-33.

Bartlett, John. Bartlett's Familiar Quotations. Boston: Little, Brown and Company, 1968

Borkowski, John G., Robert S. Weyhing, and Lisa A. Turner. "Attributional Retraining and the Teaching of Strategies." Exceptional Children. Oct., 1986, pp.130-37.

Bos, Candace S. "Process Oriented Writing: Instructional Implications for Mildly Handicapped Students." Exceptional Children. April, 1988, pp.521-27.

Culbreth, Pamela. Personal Interview. Feb. 3, 1989.

deBettencourt, Laurie U., "Strategy Training: A Need for Clarification." Exceptional Children. Sept., 1987, pp.24-30.

Deshler, Donald D., and Jean J. Schumaker. "Learning Strategies: An Instructional Alternative for Low-Achieving Adolescents." Exceptional Children, April, 1986, pp.583-90.

Durr, William K., et al. Moonbeams. pp.98-120. Boston: Houghton Mifflin Company, 1981.

Englert, Carol Sue, et al. "Establishing a Case for Writing Intervention: The What and Why of Expository Writing." Occasional Paper No.111. April 1987. ERIC ED 282 239.

Englert, Carol Sue, et al. "Students' Metacognitive Knowledge About How to Write Informational Texts." Learning Disability Quarterly. Winter, 1988, pp.18-46.

Englert, Carol Sue, and Taffy E. Raphael. "Constructing Well-Formed Prose: Process, Structure, and Metacognitive Knowledge." Exceptional Children. April, 1988, pp.513-20.

Gerber, Michael M., "Learning Disabilities and Cognitive Strategies: A Case for Training or Constraining Problem Solving." Journal of Learning Disabilities. May, 1983, pp.255-60.

Graham, Steve and Karen R. Harris. "Instructional Recommendations for Teaching Writing to Exceptional Students." Exceptional Children. April 1988, pp.506-12.

Graves, D.H. "All Children Can Write." Learning Disabilities Focus. Jan., 1985, pp.36-43.

Harris, Karen R., and Steve Graham. "Improving Learning Disabled Students' Composition Skills: Self-Control Strategy Training." Learning Disibility Quarterly., Winter, 1988, pp.27-36.

Lines, Catherine, and Verne Keenan. "Verbal Rehearsal Strategies and Metamemory in Learning Disabled Children." Paper presented at the Annual Meeting of the American Psychological Association (Los Angeles, Ca.). August, 1981. ERIC ED 214 354.

Moran, Mary Ross. "Rationale and Procedures for Increasing the Productivity of Inexperienced Writers." Exceptional Children. April, 1988,pps.552-58.

Nagle, Richard J., and Ben C. Thwaite. "Are Learning Disabled Children More Impulsive?: A Comparison of Learning Disabled and Normal-Achieving Children on Kagan's Matching Familiar Figures Test." Psychology in the Schools. July, 1979, pp.351-55.

Ossorio, Melinda. Lecture on Metacognitive Strategies, Nova University, 1988.

Ossorio, Melinda. Lecture on Critical Thinking, Nova University, 1988.

Slife, Brent D., Jane Weiss, and Thomas Bell. "Separability of Metacognition and Cognition: Problem Solving in Learning Disabled and Regular Students." Journal of Educational Psychology. Vol. 77, No. 4, 1985, pp.437-45.

Smith, Marilyn and Thomas W. Bean. "Four Strategies That Develop Children's Story Comprehension and Writing." The Reading Teacher. December, 1983, pp.295-301.

Torgesen, Joseph K., "The Role of Nonspecific Factors in the Task Performance of Learning Disabled Children: A Theoretical Assessment." Journal of Learning Disabilities. Dec.,1977, pp.33-40.

# APPENDIX

# Appendix A

## Interview With Learning Impairment Teacher

Learning Impairment Teacher Interview

1. What is the reading level of the three students in the target group?

2. How much time is designated for written language instruction on each student' IEP?

3. On what do you spend that instructional time?

4. How much time is designated for spelling?

5. How much time is designated for parts of speech?

6. How much time is designated for punctuation?

7. How much time is designated for writing and expanding sentences?

8. Is there any other time which the students actually spend on the writing process, itself?

# Appendix B

## Student Interview

Student Interview

Name _____

Date _____

1. Why do people need to learn to write?

2. Outside of school, do you ever write:

   letters? _____

   notes? _____

   stories? _____

   reports? _____

   books? _____

   in a diary? _____

3. Are you good at writing? _____

4. If you were to teach a first grader how to write a story, what would you tell him(her) that would make him(her) a good writer?

5. When you fixed up your story, what did you look for?

Appendix C

Letter of Introduction

and Permission to Assess

March 6, 1989

Dear Parents,

I am presently working on my Masters Degree at Nova University in Fort Lauderdale, Florida. One part of the masters program is a practicum project, in which a solution to an existing problem is sought. I have chosen to seek a solution to the written language deficits common to learning disabled students. Your child exhibits this problem and I would like to include your child in this project.

Research has shown that learning disabled students may not only be delayed in skill development, but in metacognitive abilities, as well. Metacognition, which literally means thinking about thinking, refers to the ability to learn how to learn.

Traditionally, special education classrooms have focused on teaching students specific skills rather that teaching students how to learn those skills and others they may later encounter. Here is an example of the difference in these two approaches to teaching spelling. A traditional approach to teaching spelling is to give the students a weekly word list. Word by word, the students will gain enough knowledge to spell. A metacognitive approach to teaching spelling is to teach students that an effective way to learn to spell is to say the letters of the word over and over in their minds. This strategy is one which can be applied to learning to spell words on the current word list, as well as learning new words which may later be encountered.

In this practicum project, I will be using this approach to teach written language. It is hoped that by the end of this project the students will have gained the following metacognitive awarenesses involved in the writing process:

1. the awareness that the purpose of writing is communication;
2. the awareness that the writer must switch roles between writer and reader;
3. awareness of what the writer knows and does not know about spelling, capitalization, and punctuation, and how, when, and where to find out what is not known;
4. awareness that learning to write takes effort on the part of the learner;
5. awareness of a strategy to use when rewriting.

The goals of this project do not affect the goals developed in your child's Individual Education Plan. It is my contention that increased metacognitive awareness will help your child reach those goals sooner.

In order to determine whether or not this approach is successful, it is necessary to test your child before and after the program is implemented. For this testing, I will need your permission. This testing is unrelated to the tests your child received to determine eligibility for special education. I will send you the results of these tests and be available to discuss them if you desire. This program will begin on March 27, 1989 and continue until the end of this school year.

Please, sign the attached form to indicate that you give permission for your child to participate in this project and be tested prior to and following its implementation. Thank you for your continued cooperation. If you have any questions, please feel free to call me at #2565.

Sincerely,

Madeline Kuhns
Learning Impairment Teacher

Parent Permission Form

I give permission for my child,_____,
to participate in the practicum project conducted
by Madeline Kuhns and to be given the following
tests prior to and following this project:

Test of Written Language
Written Language Sample
Written Language Sample Revision
Interview

Signed _____

Date _____

# Appendix D

## Strategy Worksheet

___ENSE

Does the story make sense?

Have I used complete sentences?

Did I leave out any words?

Did I write any words twice?

Is the story in order?

___NTERESTING

Is the story interesting?

Could I use better words to describe how something is happening?

Could I use more adjectives?

___UNCTUATION

Did I use proper punctuation?

. ? ! , " " '

___PELLING

Did I spell all the words correctly?

Where can I find out how the word should be spelled?

___APITALIZATION

Did I use capital letters to:
begin each sentence?
begin names of:
people?
places?
books?
days?
months?
holidays?
Did I capitalize any letters that I shouldn't?

Appendix E

Story Plan

STORY PLAN

Characters (In order of their appearance):

Introductory Event:

Repeated Pattern:

Ending:

Appendix F

Punctuation Practice

# Punctuation Practice

. ? ! , " " '

Name _____

Class Practice

1. Mickey told California Raisin to come with him
2. What does TNT mean
3. California Raisin Roger Rabbit and Alice arrived at Heathcliffs pierhouse
4. So the California Raisin turned and went to Roger Rabbits house
5. Alice asked How do you know
6. Ive got to leave before I blow up said Roger Rabbit

Independent Practice

1. Hello Dude Whats up
2. They explained to her the theyre putting a bomb in the road
3. Alice said Oregon Court is going to explode
4. One day when the purple California Raisin was driving his red Porsche he saw some tall men digging in the middle of the road
5. Oregon Court is going to explode yelled Heathcliff
6. Mickey asked How do you know
7. Who told you that Heathcliff
8. Who told you Alice
9. Lets go ask this worker
10. Lets go tell your friends what it means

# Appendix G

## Grading System

CLASSROOM PARTICIPATION
(one-half of report card grade)

Name_____

| | Contributions | | | | | Disruptions | | | Grade |
|---|---|---|---|---|---|---|---|---|---|
| Date | F | D | C | B | A | | | | |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |
| _____ | | — | — | — | — | — | — | — | — |

USE OF STRATEGY
(one-half of report card grade)

Name_____

Sense

You have _____ incomplete sentences.

| To get an: | You need to fix: | |
|---|---|---|
| A | _____ sentences | |
| B | _____ sentences | |
| C | _____ sentences | |
| D | _____ sentences | GRADE _____ |

Interesting

| To get a: | You need to make this many nouns or verbs more interesting: | |
|---|---|---|
| A | 9 - 10 | |
| B | 7 - 8 | |
| C | 5 - 6 | |
| D | 3 - 4 | GRADE _____ |

Punctuation

You have _____ punctuation errors.

| To get a: | You need to fix this many errors: (finding an error counts as 1/2) | |
|---|---|---|
| A | _____ | |
| B | _____ | |
| C | _____ | |
| D | _____ | GRADE _____ |

Spelling

You have _____ spelling errors.

| To get a: | You need to fix this many errors: (finding an error counts as 1/2) |
|---|---|
| A | _____ |
| B | _____ |
| C | _____ |
| D | _____ GRADE _____ |

Capitalization

You have _____ capitalization errors.

| To get a: | You need to fix this many errors: |
|---|---|
| A | _____ |
| B | _____ |
| C | _____ |
| D | _____ GRADE _____ |

# Appendix H

## Preassigned Writing Topics

## Preassigned Writing Topics

The following preassigned writing topics appeared on the chalkboard as the students entered the classroom. Each topic appeared two times, so that the partners could find out about each other.

1. Find out what your partners like to do in their spare time.

2. Find out about your partner's family.

3. Find out if your partner has a pet. If your partner does have a pet, find out what it looks like and what it can do. If your partner doesn't have a pet, find out what kind of pet your partner would like.

4. Find out what your partner likes to eat and drink.

5. Find out your partner's favorite TV shows and actors or actresses.

6. Find out your partner's favorite songs and singers.

7. You and your partner decide on a good name for our book. We will vote on the best name later.

8. Find out what your partner did last weekend.

9. Find out how your partners spent their last birthday.

10. Find out what your partner will be doing in the summer.